sera allowed to separate from one to forty-eight hours. When preserved human sera yield stronger complement-fixation reaction than the same sera while fresh, the difference is due to the presence of anticomplementary substances antilysins or the deteriorations of natural hemolysins. The anti-complementary activity of a serum is greatly modified by whether it is used unheated or heated and by the presence or absence of natural hemolysins. The presence of anticomplementary substances (antilysins) influences the degree of positiveness of a reaction and explains in part the differences observed with portions of the same blood in different laboratories; technic should, however, discover the presence of these antilysins and render all laboratory reports uniform, insofar as positive or negative reactions are concerned. The serum control tube should not carry more serum or spinal fluid than the main tube or tubes if an anti-sheep or anti-ox hemolytic system is being employed in order to avoid the influence of natural hemolysis.

Salt Solution in Increased Intracranial Tension.—FOLEY (*Surg. Gyn. Obstet.*, 1921, xxxiii, 127) says that intravenous injection of hypertonic salt solution or the ingestion of salt produces a fall of cerebrospinal fluid pressure and a diminution of brain bulk. In conditions of pathologically increased tension, the response is conditioned by the details of the pathological alterations. The determining factors appear to be the size of the lesion which increases brain bulk and the amount of fluid available for absorption. The induced fall of pressure is inversely proportional to the former and directly proportional to the latter. A distinction is made between increased intracranial fluid tension *per se* and increased intracranial tension which is due to enlargement of brain bulk. From observation of cases of obstructed and dilated ventricles an intraventricular absorption of fluid following salt ingestion seems to occur. The procedure has a definite field of clinical usefulness in cases exhibiting high grades of intracranial pressure. The most striking results are to be obtained in those cases in which cerebrospinal fluid obstruction exists.

Jejunal Ulcer.—JUDD (*Surg. Gyn. Obstet.*, 1921, xxxiii, 120) says that gastro-enterostomy for ulcer of stomach or duodenum offers the patient a good prospect of complete and permanent relief of all symptoms. Unsatisfactory results are most often due to a gastrojejunostomy in cases in which no ulcer exists—procedure must be upon a pathological basis. The relative appearance of the syndrome called "vicious circle" is due to recognition of the importance of avoiding operation when no ulcer exists. Jejunal ulcer is one of the most serious and perhaps one of the most common after-complications of gastroenterostomy. It occurs either in the line of anastomosis as a so-called gastrojejunal ulcer or in the jejunum as a true jejunal ulcer. The lesion is usually single. Its frequency is difficult to estimate, Patterson reporting that they occurred in from 1 per cent to 2 per cent of cases. A satisfactory explanation of the cause of jejunal ulcer can best be found in the etiology of the original ulcer. Only one case of primary jejunal ulcer is mentioned in the literature. The author notes that jejunal ulcer following operation almost always occurs only following gastro-enterostomy for ulcer. There have been no cases observed in the Mayo Clinic following plastic procedure around the pylorus. The principal cause of the secondary ulceration is the action of the acid gastric secretion on the mucous membrane of the jejunum. In all Patterson's cases and in more than 60 per cent of the cases in the clinic the acids were high even after gastro-enterostomy. Permanent suture material has also been a factor in the production of many ulcers particularly those close to the gastro-jejunostomy opening. Infection must play some part in the etiology of these lesions, for the cut surfaces of the stomach and of the jejunum are exposed to the infection from the original ulcer during operation and during the healing process, which lasts about fourteen days. The onset of symptoms varies from almost immediately after the gastro-enterostomy to eight or ten years. Usually all symptoms are completely relieved following gastro-enterostomy for six months to a year. The results of operations in these cases of secondary ulcer have been reasonably satisfactory, especially since the importance of dispensing with the gastro-enterostomy has been realized. Whenever a secondary ulcer has formed after gastro-enterostomy it is surprising how many will continue to form if the anastomosis is maintained in those patients who seem to have some definite irregularity or specific infection.

Studies in Reduction of Bone Density.—PHEMISTER (*Am. Jour. Roentgenology*, 1921, viii, 355) says that reduction in density may be local, regional or general—according to the cause. The author's object is to show the histologic processes by which bone is destroyed. In bone infections there are four processes by which reduction in density may be produced—first, there is destruction of dead bone at the seat of greatest inflammatory activity; second, there is local destruction of living bone or caries; third, there is rarefying osteitis in the neighboring living bone for variable distances about the area of complete bone destruction; and fourth, there is regional atrophy of disease. In osteomyelitis necrotic bone results from the effect of the toxins in the most severely inflamed region. The unossified elements of the dead bone are rapidly killed by toxins and removed by the action of the serum and leukocytes. The calcareous deposits are only removed as a reparative process by the absorptive action of the granulations. From six to fifteen days elapse before signs of reduction in density can be shown by the *x*-ray. Tuberculosis usually produces localized osteitis. The metaphyseal region of the end of the bone is more frequently involved primarily, especially during the first decade. After the tenth year primary foci in the epiphyses are seen with increasing frequency. Ingrowth of tubercular granulation tissue beneath the articular cartilage is a common occurrence leading to destruction of the articular cortex of bone and to disappearance of the sharp line which it normally casts in *x*-rays. Bone syphilis produced gummatous caries in irregularly distributed and various-sized areas. Shadows from new bone formation are frequently interspersed. In bone tumors reduction of density results almost entirely from breaking down of living bone by cellular activity. In metastatic carcinoma of bones the relative amounts of bone destruction and new bone formation bear some relation to the seat of the primary tumor—and its degree of malignancy